REMARKS

Amendments to the Claims

Claims 1-3, 7-9, and 11-24 are pending in the present application. Claim 4 has been previously canceled, and claims 5-6 are currently canceled. Claims 11-24 have been previously withdrawn. No additional claims fee is believed to be due.

Claims 1-2 and 8 have been amended as shown above. Support for these amendments can be found in the original claims and at page 2, line 22 to page 4, line 9 of the specification.

It is believed these changes do not involve any introduction of new matter. Consequently, entry of these changes is believed to be in order and is respectfully requested.

Remarks on the Advisory Action of November 30, 2005

In the Advisory Action of November 30, 2005, the proposed claim amendments filed after a final rejection in the Amendment of November 1, 2005 are not entered by the Examiner. The Examiner asserts that the proposed claim amendments raise new issues that would require further consideration and/or search. More specifically, the Examiner states that the "instant amendment of C5 to C6 requires further consideration and or possibly new search. Further, instant claims now recite dihydroxyalkyl and phenyl, which raises an issue under 35 USC 112, 2nd paragraph because the meets [*sic*] and bounds of the variable R1 and[ ]R2 are unclear."

Applicants respectfully disagree with the Examiner's position regarding the proposed amendments. As the previously proposed claim amendments are identical to the currently presented claim amendments, Applicants request the Examiner to reconsider this position regarding the proposed amendments when the Examiner now considers the currently presented claim amendments, as is necessitated by the current filing of a Request for Continued Examination ("RCE") under 37 CFR § 1.114.

First, while this point may be moot in view of the currently filed RCE, the proposed amendment to claim 1 which replaces "C_5" with "C_6" should not require further consideration or further searching. Although, the immediately prior version of the claims in the present application recited in claim 1 the limitation " . . . or R1 and R2 together with the nitrogen atom to which they are attached form a C_3 to C_5 saturated or unsaturated

ring . . . ", the claims as originally presented in this application recited in claim 1 the limitation " . . . or R1 and R2 together with the nitrogen atom to which they are attached form a C_3 to C_6 saturated or unsaturated ring . . . ". The Examiner considered and searched for "C_6" in the context of at least the Office Action of December 3, 2003. Thus, while there are other differences between the proposed amendment to claim 1 and claim 1 as originally presented, the replacement of "C_5" with "C_6" in claim 1 should not itself alone require further consideration or further searching.

Second, the metes and bounds of the variables R_1 and R_2 are not unclear and no issue under 35 USC 112, second paragraph is raised by the claims reciting dihydroxyalkyl and phenyl. According to the previously proposed amendment and the currently presented amendment to claim 1, the variables R_1 and R_2 are defined as follows:

> R_1 is selected from the group consisting of C_1 to C_5 mono or dihydroxyalkyl, and phenyl or benzyl optionally substituted with a hydroxyl, amino, or C_1 to C_3 alkoxy group.
>
> R_2 is selected from the group consisting of a hydrogen atom, C_1 to C_5 alkyl, C_1 to C_5 mono or dihydroxyalkyl, and phenyl or benzyl optionally substituted with a hydroxyl, amino, or C_1 to C_3 alkoxy group.
>
> Alternatively, R_1 and R_2 together with the nitrogen atom to which they are attached form a C_3 to C_6 saturated or unsaturated ring containing in the ring one or more additional hetero atoms selected from O, S and N atoms.

Applicants respectfully submit that the respective definitions of the variables R_1 and R_2 are clear to one of ordinary skill in the art.

The Examiner also states that "instant claims *now* recite dihydroxyalkyl and phenyl" (emphasis added), implying that R_1 and R_2 were not previously defined to include dihydroxyalkyl and phenyl and that this was a newly added limitation. However, the Markush group defining both R_1 and R_2 in claim 1 as originally presented in this application recites dihydroxyalkyl and phenyl. Additionally, the immediately prior version of the claims in the present application recited definitions of R_1 and R_2 in claim 1

that included dihydroxyalkyl and phenyl. The Examiner previously did not assert that the recitation of these two substituents made the definitions of R_1 and R_2 unclear under 35 USC 112, second paragraph. Moreover, Applicants respectfully submit that it is not even apparent to them how the recitation of dihydroxyalkyl and phenyl in the respective definitions of R_1 and R_2 makes those definitions unclear to one of ordinary skill in the art.

Based upon the above remarks, Applicants respectfully disagree with the Examiner's position regarding the proposed amendments, which are the same as the currently presented amendments. Thus, Applicants request the Examiner to reconsider this position regarding the proposed amendments when the Examiner now considers the currently presented claim amendments.

Rejections Under 35 USC 103(a) Over US Patent No. 4,645,771 to Mills

Claims 1-3, 5, and 6 are rejected under 35 USC 103(a) as being unpatentable over US Patent No. 4,645,771 to Mills ("Mills"). The Examiner asserts that Mills teaches benzyl tetrahydropyridine compounds having a structural formula of a formula I, wherein the R2-R6 substituents on ring A are selected from hydrogen, halogen, hydroxy, alkyl or alkoxy radicals, and R1 is a hydrogen or an alkyl radical. The Examiner also asserts that Mills states that R2 and R6 can be hydroxy radicals with the remaining R3-R5 substituents being hydrogen. The Examiner notes, though, that Mills does not teach or exemplify Applicants' claimed compounds. However, the Examiner further asserts that Mills suggests preparation of various derivatives, including specific dihydroxy derivatives of pyridines that include Applicants' claimed compounds. Thus, the Examiner concludes that one of ordinary skill in the art would have been able to prepare Applicants' claimed compounds because Mills teaches tetrahydropyridine derivatives such as dihydroxybenzyl derivatives and Applicants' claims recite that R_1 and R_2 can together form a ring of C_5 atoms such as pyridine. Applicants respectfully traverse the present rejection based on the following comments.

Mills does not teach or suggest all of Applicants' claim limitations and, therefore, does not establish a *prima facie* case of obviousness. *See* MPEP 2143.03. As currently amended, Applicants' claim 1 is directed to a compound of claimed formula (1) wherein R_1 and R_2 are selected from respective lists of substituents as defined in the claim, or R_1 and R_2 together with the nitrogen atom to which they are attached form a C_3 to C_6

saturated or unsaturated ring *containing* in the ring one or more *additional* hetero atoms selected from O, S, and N. Applicants' claimed compounds can be used as couplers for oxidative hair coloring to provide bright yellow and orange-yellow coloration to hair.

In contrast, Mills discloses tetrahydropyridine derivatives for use as inhibitors of the aggregation of blood platelets for application in the treatment of thrombosis or occlusive vascular disease. While Mills more specifically discloses 1-benzyl-1,2,3,6-tetrahydropyridine derivatives with 2,6-dihydroxy substitution on the benzene ring, Applicants' claim 1 as currently amended does not include such compounds having pyridine derivative substituents. In Applicants' claim 1, where R_1 and R_2 together form a C_3 to C_6 saturated or unsaturated ring, that ring must contain at least two heteroatoms, one of which is the nitrogen atom to which R_1 and R_2 are attached. Therefore, a pyridine ring substituent, which contains only one heteroatom, is not included in the language of claim 1. As a result, Mills fails to teach or suggest all of the limitations of Applicants' claim 1.

Additionally, there is no motivation to modify the compounds disclosed in Mills to achieve Applicants' compounds of claim 1. Mills only discloses pyridine derivatives having 1-benzyl substituents. The 1-benzyl-1,2,3,6-tetrahydropyridine derivatives of Mills are described as possessing blood platelet aggregation inhibition properties similar to other known benzyl-substituted pyridine deriviatives. Thus, one of ordinary skill in pharmacology and medicinal chemistry would not find motivation in Mills to modify the pyridine structure of the compounds of Mills because Mills teaches that the compounds of Mills possess properties similar to other pyridine derivative compounds.

Accordingly, a *prima facie* case of obviousness has not been established because Mills fails to teach or suggest all of the limitations of Applicants' claim 1 and further fails to provide any motivation to modify the compounds of Mills to achieve Applicants' claimed compounds. Therefore, Applicants' claim 1, as well as claims 2-3 which contain the limitations of claim 1, are novel and nonobvious over Mills.

Rejections Under 35 USC 103(a) Over US Patent No. 4,888,283 to Bertini et al.

Claims 1, 2 and 5-9 are rejected under 35 USC 103(a) as being unpatentable over US Patent No. 4,888,283 to Bertini et al. ("Bertini"). The Examiner asserts that Bertini teaches compounds that act as inhibitors of benzylaminoxidases, which compounds have a general formula I in which R1 and R2 can be hydrogen, hydroxy, and alkoxyl, and R3,

R4, and R5 can be hydrogen or alkyl. Thus, the Examiner asserts that Bertini teaches benzene diol compounds. The Examiner further asserts that Bertini suggests that for compounds of formula I containing alkoxyl groups at R1 and R2 the synthesis steps comprise preparing benzaldehyde from benzene, transforming the benzaldehyde to oximes, and reducing the oximes to benzylamino compounds. Thus, the Examiner concludes that it would have been obvious to one of ordinary skill in the art to prepare hydroxyl containing benzene derivatives of formula I because Bertini suggests that preparing compounds by the described process is easily carried out. Applicants respectfully traverse the present rejection based on the following comments.

Bertini does not teach or suggest all of Applicants' claim limitations and, therefore, does not establish a *prima facie* case of obviousness. *See* MPEP 2143.03. As currently amended, Applicants' claim 1 is directed to a compound of claimed formula (1), wherein R_1 is selected from hydrogen atoms, C_1 to C_5 alkyl, C_1 to C_5 mono or dihydroxyalkyl, and phenyl or benzyl optionally substituted with a hydroxyl, amino or C_1 to C_3 alkoxy group, and R_2 is selected from *C_1 to C_5 mono or dihydroxyalkyl, and phenyl or benzyl optionally substituted with a hydroxyl, amino or C_1 to C_3 alkoxy group*, or R_1 and R_2 together with the nitrogen atom to which they are attached form certain heterocyclic rings as claimed. Applicants' claimed compounds can be used as couplers for oxidative hair coloring to provide bright yellow and orange-yellow coloration to hair.

Unlike Applicants' claimed compounds, the compounds of formula I of Bertini are intended for use as selective inhibitors of benzylaminoxidases with respect to other aminoxidases. Although the variable substituents of formula I of Bertini can be selected such that any two of the R1-R5 substituents are hydroxyl which thus provide a benzene diol compound, formula I of Bertini requires an *unsubstituted* aminomethyl group at the position on the benzene molecule between the R1 and R2 substituents. Bertini provides no teaching or suggestion for a *hydroxyalkyl-substituted* or a *phenyl- or benzyl-substituted* aminomethyl group at this position of the benzene molecule. In formula (1) of Applicants' claim 1 as currently amended, R_2 cannot be hydrogen or C_1 to C_5 alkyl, and, therefore, an aminomethyl group *substituted with hydroxyalkyl or phenyl or benzyl* is required at the 2-position of the benzene-1,3-diol derivative compound. As a result, Bertini fails to teach or suggest all of the limitations of Applicants' claim 1.

Additionally, there is no motivation to modify the compounds disclosed in Bertini to achieve Applicants' compounds of claim 1. Bertini is directed to compounds suitable for causing the selective inhibition of benzylaminoxidase, which is an enzyme that catalyzes the oxidative deamination of various monoamines or polyamines in biological systems. As stated immediately above, formula I of Bertini requires an unsubstituted aminomethyl group at the position on the benzene molecule between the R1 and R2 substituents. Further, all of the example compounds described in Bertini have an unsubstituted aminomethyl group.

Accordingly, a *prima facie* case of obviousness has not been established because Bertini fails to teach or suggest all of the limitations of Applicants' claim 1 and further fails to provide any motivation to modify the compounds of Bertini to achieve Applicants' claimed compounds. Therefore, Applicants' claim 1, as well as claims 2 and 7-9 which contain the limitations of claim 1, are novel and nonobvious over Bertini.

CONCLUSION

In light of the amendments and remarks presented herein, it is requested that the Examiner reconsider and withdraw the present rejections. Early and favorable action in the case is respectfully requested.

Applicant has made an earnest effort to place their application in proper form and to distinguish the invention as now claimed from the applied references. In view of the foregoing, Applicant respectfully requests reconsideration of this application and allowance of Claims 1-3 and 7-9.

Respectfully submitted,

THE PROCTER & GAMBLE COMPANY

By _____
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